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Notes:

1. Untranslatable words are replaced with asterisks (***).
2. Texts in the figures are not translated and shown as it is.

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Computer Translation

FULL CONTENTS

[Claim(s)]

[Claim 1] The water activation psilosis sheet which has the hydrophobic base material which has moisture permeability, and a pasting layer containing film plasticity polymer and a depilatory thing.

[Claim 2] Said hydrophobic base material is a water activation psilosis sheet according to claim 1 which is a nonwoven fabric.

[Claim 3] The water activation psilosis sheet according to claim 1 or 2 characterized by preparing the grasping part in which said pasting layer is not formed in said hydrophobic base material.

[Claim 4] The water activation psilosis sheet according to claim 1, 2, or 3 characterized by laminating the separator protruded above said grasping part on said pasting layer.

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to a water activation psilosis sheet. Specifically, it is related with the water activation psilosis sheet of the depilatory thing content type which shows tackiness, removes the film formed after desiccation, and depilates hand and foot etc. by carrying out humidity by hydrophilic media, such as water or ethyl alcohol, and methyl alcohol.

[0002]

[Description of the Prior Art] The chemical depilatory containing a depilatory thing is used as a depilatory from which people's hand and foot and the body hair under ** are removed, and those many are supplied for this chemical depilatory as a thing of paste state or the shape of cream.

[0003] Although the chemical depilatory had very few pains at the time of use compared with the physical depilatory which draws out body hair compulsorily, the thing of the above-mentioned paste state or the shape of cream had to be wiped off with absorbent cotton etc. at the time of elimination, or had to be flushed, and its after-treatment was troublesome.

[0004] , for example as indicated by JP,S61-221112,A, JP,S61-282311,A, etc. in order to solve the starting problem The chemical depilatory which constitutes a depilatory from the polymer and the depilatory thing which have a film plasticity, dries the applied depilatory, and formed the film is developed.

[0005] However, even if it was in the such type depilatory, it had problems, such as difficulty at the time

of the beginning of using -- there are many things of liquid, paste state, or the shape of cream, it is difficult to apply uniformly at the time of use, and a hand becomes dirty.

[0006] On the other hand, the sheet-like depilatory beforehand formed in the shape of a sheet using film plasticity polymer is indicated by JP,S62-103010,A etc.

[0007] This sheet-like depilatory is what demonstrates tackiness by soaking in optimum dose of water or hydrophilic solvents at the time of use. The sheet-like depilatory which stuck the sheet-like depilatory on the skin side which applied optimum dose of water etc. to the pasting side of a sheet-like depilatory, stuck on the application site or applied optimum dose of water etc., and was dried after fixed time progress after that is used tearing off. Since it can stick by soaking in water etc. at the time of use if it is in the sheet-like depilatory concerned, directions for use are easy and can remove hair uniformly.

[0008] However, if a film was not fully dried like a chemical depilatory above-mentioned film plasticity type [, such as paste state,], when there was a possibility that a film may remain in a skin side at the time of ablation and a base material was especially formed from the ease of handling, there was a problem that only a base material will exfoliate.

[0009] It is rare to make this invention in view of the fault of the above-stated conventional example, and for a film to remain at the time of ablation, and there is handling in offering a very simple chemical psilosis sheet.

[0010]

[Means for solving problem] The water activation psilosis sheet of this invention is characterized by having the hydrophobic base material which has moisture permeability, and a pasting layer containing film plasticity polymer and a depilatory thing.

[0011] As the hydrophobic base material concerned, it is desirable especially to use a nonwoven fabric, and it is desirable to prepare the grasping part by which said pasting layer is not formed in the hydrophobic base material concerned.

[0012] Moreover, it is desirable to laminate a separator on a pasting layer, so that it may overflow above said grasping part.

[0013]

[Mode for carrying out the invention] The perspective view of the water activation psilosis sheet whose [drawing 1](#) is the form of 1 operation of this invention, the perspective view of the water activation psilosis sheet whose [drawing 2](#) is the form of another operation of this invention, [drawing 3](#) , and [drawing 4](#) are the top views of the water activation psilosis sheet which is the form of still more nearly another operation of this invention, respectively. According to each figure, this invention is explained in detail hereafter.

[0014] The pasting layer 12 containing film plasticity polymer and a depilatory thing is formed on the base material 11 with which each water activation psilosis sheet 10 shown in [drawing 1](#) - [drawing 4](#) carried out the shape of a sheet, or the shape of a film.

[0015] The base material 11 must have moisture permeability, and if it is the thing of non-moisture permeability, moisture does not evaporate from the surface of a base material 11, and it cannot promote the desiccation after pasting.

[0016] Moreover, the base material 11 must have hydrophobicity. In here, hydrophobicity means a hygroscopic (absorptivity) small thing weakly [compatibility with water] that is, and what absorbs water easily like textiles, such as a cheesecloth, is removed. That is, while the water used in order to apply gauze on a skin side is absorbed by the base material 11 and what has hydrophilic nature like a

textile becomes difficult to acquire moderate tackiness and moderate pH, the moisture absorbed by the base material 11 needs to evaporate and it will require drying time. As a result, a pasting layer will exfoliate in the status that it does not fully dry, and will produce stiffness of film residue ***** in a skin side.

[0017] That is, the base material 11 used for this invention will not be limited, especially if it is hydrophobicity and is the sheet-like thing or film-like thing which has moisture permeability. Structurally, although you may be any of sheet-like things, such as textile fabrics, a nonwoven fabric or a porous film, and an infiltrative film, or a film-like thing, the viewpoint which a base material 11 is infiltrated and can form a part of viewpoint which can be obtained inexpensive, and pasting layer 12 to especially a nonwoven fabric is desirable.

[0018] In quality of the material, for example Moreover, polyester, nylon, Saran, polyethylene, Polypropylene, an ethylene-vinylacetate copolymer, an ethylene ethyl acrylate copolymer, Polytetrafluoroethylene, an ionomer, polyacrylonitrile system resin, etc. One sort, or the sheet and film which were used two or more sorts, Or various synthetic fibers, such as nylon, polyester, polyethylene, polypropylene, polyurethane, cellulose, rayon, and acetate, can be used. In addition, it is a two-layer mechanism with the nonwoven fabric, and the hydrophilic nonwoven fabric and the hydrophobic nonwoven fabric which ****(ed) hydrophilic fibers, such as rayon and cotton, by 55 or less weight % of the ratio in this invention for the fiber which consists of the hydrophobic above-mentioned quality of the material. Even if the ratio of a hydrophilic nonwoven fabric is 55 or less weight % of the thing of all the textile fabrics, it can be used if it has said hydrophobic feature.

[0019] Moreover, the pasting layer 12 used for this invention contains film-forming polymer and a depilatory thing. The polymer used for what is called a peel-off type of cosmetic with film-forming polymer in this invention, That is, while the pasting layer 12 formed on the base material 11 is soaked in hydrophilic media, such as water or ethyl alcohol, and methyl alcohol, it is stuck on a pasting part. After drying after fixed time neglect progress, the polymer which forms a film is meant, and it will not be limited especially if it has tackiness with the water applied at the time of use. For example, polyvinyl pyrrolidone, polyacrylic acid and its salt, polyacrylamide, A carboxymethyl cell roll, methyl cellulose, hydroxyethyl cellulose, hydroxypropylcellulose, polyethylene glycol, gum arabic, tragacanth rubber, etc. are mentioned, and one sort or two sorts or more can be used for these.

[0020] What demonstrates the effect which starts under existence of water preferably that what is necessary is just the drug which is not limited especially as a depilatory thing and dissolves the keratin in body hair is good. For example, thioglycolic acid, the salts and strontium sulfate, sodium sulfide, a barium sulfide, calcium sulfide, etc. are mentioned, and one sort or two sorts or more can be used for these. The depilatory thing concerned is preferably blended by 5 to 40weight % of within the limits one to 45weight % into the pasting layer 12.

[0021] Moreover, various kinds of additives can be made to contain if needed in the pasting layer 12. For example, urea etc. can be added as a swelling accelerator of body hair, or various drugs, natural aromatic, synthetic perfumes, etc. including antiplogistics, such as various emulsifiers, such as polyoxy ethylene glycol and fatty acid monoglyceride, glycyrrhizin, and azulene sulfonate, can be added.

[0022] Furthermore, a plasticizer can be added from the purpose which controls the vapor rate of moisture or gives plasticity, or various kinds of bulking agents can be added from the viscosity control of the pasting layer 12, or the purpose of coloring. As a plasticizer, polyethylene glycol, polypropylene glycol, glycerol, polyglycerin, sorbitol, etc. are mentioned. Moreover, as a bulking agent, various

organic substances or inorganic substances, such as various inorganic acid ghosts, such as silica, alumina, zinc oxide, titanium oxide, a talc, Clay, kaolin, and glass, an organic acid ghost or barium sulfate, calcium carbonate, Ceramics Sub-Division, carbon, and a metal powder object, are mentioned. [0023] Among the above-mentioned depilatory thing, if it is in thioglycolic acid, its salt, etc., the catabolic rate of a keratin is promoted under alkalinity and the effect is demonstrated effectively.

Therefore, when the drug concerned is used, it is desirable that it is the bottom alkalinity of humid. For this reason, it is desirable to blend a basic substance into the pasting layer 12. As this basic substance, sodium hydroxide, a calcium hydroxide, triethanolamine, etc. are mentioned, for example. Although the quantity to blend changes with basic substances to be used, it is desirable 9-13, and for pH of the pasting layer 12 of a final product to blend so that it may be desirably set to 10-12. It can be referred to as suitable pH of a depilatory thing, when it is soaked in the grade which can be moderately stuck on a skin side according to the usual directions so that by adjusting to pH of this range may describe below. Moreover, if pH exceeds 13, since the stimulus to the skin will become large, it is not desirable. In addition, this pH can dissolve the pasting layer 12 in water, and can obtain it by measuring what was used as the aqueous solution 10weight % with a commercial pH meter.

[0024] The water activation psilosis sheet 10 concerning this invention is producible as follows. It applies to the grade from which the pasting layer 12 of optimum dose of water or/and a hydrophilic medium, and the thickness that, in addition to this, adds various kinds of additives if needed, is fully mixed, produces coating liquid, and asks for the coating liquid concerned is obtained in the process paper at the above-mentioned film plasticity polymer or a depilatory thing. And the above-mentioned base material 11 is laminated, this thing is fully dried, and the pasting layer 12 is formed on a base material 11. If it is when using the base material 11 which consists of a nonwoven fabric at this time, as described above, it is good to make it make some base materials 11 buried in the pasting layer 12. Thus, if it is made to make some base materials 11 buried, the anchoring power between a base material 11 and the pasting layer 12 will improve, and ablation residue after ablation (film) can be lessened more.

[0025] Then, the water activation psilosis sheet 10 which exfoliates process paper and is applied to this invention is obtained. Moreover, when a separator 13 may be laminated and it uses a separator 13 on the pasting layer 12 concerned if needed so that it may mention later, on a separator 13, direct coating liquid can be applied and the pasting layer 12 can also be formed.

[0026] In this way, the pasting layer 12 of the obtained water activation psilosis sheet 10 shows tackiness by the applied water or the hydrophilic medium, and after it applies optimum dose of water etc. to the surface of the pasting layer 12 at the time of use or applies optimum dose of water etc. to a pasting part, it is used for the water activation psilosis sheet 10 concerned by it, sticking. At this time, with the applied water, the pasting layer 12 will once be in humidity or the status that it dissolved, and film plasticity polymer will twine round body hair uniformly. Moreover, the keratin in body hair is dissolved by the depilatory thing dissolved by the applied water, and body hair is cut with it. In this way, the cut body hair is incorporated into the film formed by drying, and ablation elimination is carried out with a base material 11 and a film. Thus, it can be easily used also at the time of use, and it can remove hair comparatively, without also leaving ablation residue between short time.

[0027] As mentioned above, after sticking on a skin side, the water activation psilosis sheet 10 concerning this invention exfoliates, and is used. For this reason, it must be made to have to remove the psilosis sheet 10 stuck at the time of ablation by a nail etc., the pasting layer 12 sticks to a skin side, and it may be hard to remove, or, occasionally a skin side may be damaged by a nail. Therefore, it is

convenient to form the grasping part 14 by which the pasting layer 12 is not formed in the base material 11.

[0028] If it is in the water activation psilosis sheet 10 shown in drawing 2, the grasping part 14 is formed in one end of the base material 11. The grasping part 14 concerned can be easily formed by applying only to a predetermined field the coating liquid which consists of the above-mentioned film plasticity polymer, a depilatory thing, etc. Thus, if the grasping part 14 is formed, it can leave base material 11 portion which is not stuck on a skin side, and a base material 11 can be held easily, without removing by a nail etc. Therefore, the psilosis sheet 10 can be exfoliated easily, without damaging a skin side.

[0029] Moreover, the separator 13 is laminated on the pasting layer 12 of the water activation psilosis sheet 10 concerned. May fully evaporate water or the hydrophilic medium which were used by the manufacturing process depending on the presentation of the pasting layer 12, and will be a little tinged with tackiness. In this case, a separator 13 is laminated from a viewpoint on storage etc. The separator 13 concerned is not what will be limited especially if used as a separator 13 of a large common pasting material. For example, metal films, such as plastic films, such as polyester, polyethylene, and polypropylene, and aluminum foil, other various films, sheets, etc. can be used. Moreover, even if it uses for paper of fine quality, the Glassine paper, parchment paper, or these releasing papers the paper of fine quality which laminated polyethylene etc., it does not interfere.

[0030] The separator 13 concerned is produced in consideration of the ease of carrying out of not only the pasting layer 12 top but ablation more greatly than the pasting layer 12, and is designed to overflow above said grasping part 14. At this time, it is desirable to make it not become larger than a base material 11 so that a packaging material may not become large superfluously. Therefore, at the time of ablation, it can have the flash portion concerned, and can carry out at a burden small also in cost.

[0031] Moreover, you may prepare in the periphery part of a base material 11 like the water activation psilosis sheet 10 which the position in particular in which the above-mentioned grasping part 14 is formed is not limited, either, and you may make it prepare in the both ends of a base material 11 like the water activation psilosis sheet 10 shown in drawing 3, or is shown in drawing 4.

[0032]

[Working example] Next, the water activation psilosis sheet which is the water activation psilosis sheet and comparative example concerning this invention which are a concrete work example was produced, and the effect of this invention was checked.

[0033] (Work example 1) Churning mixing of the polyvinyl pyrrolidone 20 weight part, the glycerol 5 weight part, the calcium thioglycollate 5 weight part, the calcium hydroxide 1.5 weight part, and optimum dose of water of the number average molecular weight 1,200,000 was carried out, and coating liquid was obtained. It applied uniformly on the polyester film which performed ablation treatment with a thickness [used as a separator] of 50 micrometers so that the thickness after drying this coating liquid might be set to 300 micrometers. Furthermore, on the coating liquid concerned, it dried, after laminating the polyester nonwoven fabric of 40g/m² of **** used as a base material, and the water activation psilosis sheet of the work example 1 was obtained. In addition, the water content of this thing was 28 weight %, and pH was 12.

[0034] (Work example 2) Churning mixing of the sodium polyacrylate 22 weight part, the sodium thiosulfate 7 weight part, the sodium hydroxide 2 weight part, and the suitable water of the number average molecular weight 100,000 was carried out, and coating liquid was obtained. It applied uniformly

on the polyester film which performed ablation treatment with a thickness [used as a separator] of 50 micrometers so that the thickness after drying this coating liquid might be set to 250 micrometers. Furthermore, on the coating liquid concerned, it dried, after laminating the polypropylene nonwoven fabric of 40g/m2 of ****, and the water activation psilosis sheet of the work example 2 was obtained. In addition, the water content of this thing was 25 weight %, and pH was 12.5.

[0035] (Comparative example 1) If the point using the rayon nonwoven fabric of 40g/m2 of **** as a base material was removed, the water activation psilosis sheet of the comparative example 1 was obtained like the work example 1.

[0036] (Comparative example 2) Except for calcium thioglycollate and a calcium hydroxide, others obtained the water activation psilosis sheet of the comparative example 2 like the work example 1.

[0037] [Evaluation test] I got the panelist to actually use the water activation psilosis sheet of work examples 1 and 2 and the water activation psilosis sheet of comparative examples 1 and 2 which were obtained above, and had you evaluate in accordance with following evaluation criteria and a following valuation basis. In addition, each psilosis sheet was cut out in size of 5cm x 8cm, and the gauze impregnated with it was applied on the part in which the pasting layer surface was soaked in optimum dose of water, and the body hair of the arm has grown, and it exfoliated 15 minutes after after pasting.

[0038] [Evaluation criteria and a valuation basis]

(Psilosis nature)

Fitness: Hair was able to be taken finely.

Defect: Hair remained.

(Paste remainder nature)

Fitness: A film did not remain in the skin.

Defect: The film remained in the skin.

(Pain at the time of ablation)

Fitness: A pain was not sensed.

Defect: The pain was sensed.

(Skin irritation nature)

Fitness: It was normal on the skin after ablation.

Defect: It was tinged with red on the skin after ablation.

[0039] [Test result] A test result is shown in Table 1. If it was in the water activation psilosis sheet of work examples 1 and 2 as shown also in Table 1, there are also no pain and skin irritation at the time of ablation, and body hair was able to be removed finely. Although the film remained in the skin side and ablation residue was especially seen with the water activation psilosis sheet of the comparative example 1, ablation residue was not seen if it was in the water activation psilosis sheet of each work example.

[0040]

[Table 1]

	脱 毛 性	糊残り性	剝離時の痛み	皮膚刺激性
実施例 1	良 好	良 好	良 好	良 好
実施例 2	良 好	良 好	良 好	良 好
比較例 1	良 好	不 良	良 好	良 好
比較例 2	不 良	良 好	不 良	良 好

[0041]

[Effect of the Invention] Since it has the hydrophobic base material which has moisture permeability, and a pasting layer containing film plasticity polymer and a depilatory thing if it is in the water activation psilosis sheet concerning this invention After use, the psilosis sheet concerned can be used [that what is necessary is just to apply water etc. and to stick it at the time of use] very simple that what is necessary is just to exfoliate. Since it can be made to fully dry, without spending neglect time especially, it can remove without a film remaining in the skin.

[0042] While using a nonwoven fabric for the hydrophobic base material concerned can produce preferably and inexpensive, making a base material buried can do a part of pasting layer easily, and few psilosis sheets of ablation residue can be produced easily.

[0043] A psilosis sheet can be removed more easily, without being able to grasp a grasping part easily and damaging a skin side by a nail etc., if the grasping part by which the pasting layer is not formed in the hydrophobic base material is prepared at this time.

[0044] Furthermore, if the separator is laminated on the pasting layer so that it may overflow above said grasping part, a separator can be removed easily, and when a separator is laminated, even if it is, it can be used simple.

[Brief Description of the Drawings]

[Drawing 1] It is the perspective view of the water activation psilosis sheet which is the form of 1 operation of this invention.

[Drawing 2] It is the perspective view of the water activation psilosis sheet which is the form of another operation of this invention.

[Drawing 3] It is the top view of the water activation psilosis sheet which is the form of still more nearly another operation of this invention.

[Drawing 4] It is the top view of the water activation psilosis sheet which is the form of still more nearly another operation of this invention.

[Explanations of letters or numerals]

10 Water Activation Psilosis Sheet Concerning this Invention

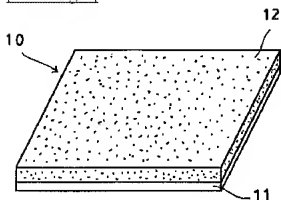
11 Hydrophobic Base Material Which Has Moisture Permeability

12 Pasting Layer Containing Film Plasticity Polymer and Depilatory Thing

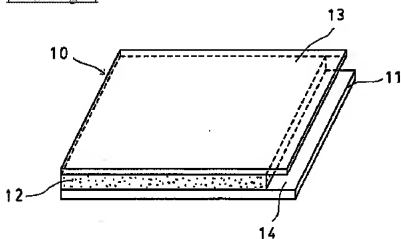
13 Separator

14 Grasping Part

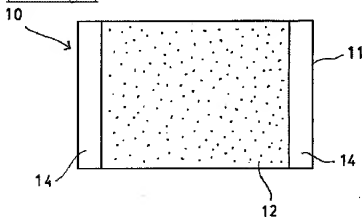
[Drawing 1]



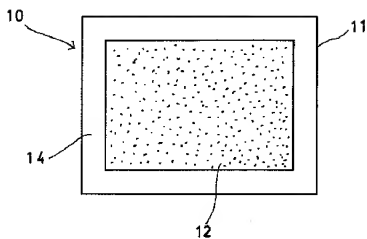
[Drawing 2]



[Drawing 3]



[Drawing 4]



[Translation done.]